

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. – 20. (Cancelled)

21. (Currently Amended) A data storage system comprising:

a ~~data-storage~~ system housing having an opening, and first and second elongate reference  
[[rails]] structures located adjacent the opening;

a media storage device for storing a plurality of data media, the media storage device  
comprising a ~~media-storage~~ device housing configured to receive the plurality of data media, ~~the~~  
~~housing having a top, a bottom and opposing ends,~~ the ~~media-storage~~ device housing having first  
and second elongate alignment ~~grooves~~ structures, each of which is adapted to slidably engage  
with a respective one of the first and second elongate reference [[rails]] structures such that the  
media storage device may be inserted into and removed from the ~~data-storage~~ system housing by  
slidably engaging the elongate reference [[rails]] structures and the elongate alignment ~~grooves~~  
structures and guiding the media storage device through the opening of the ~~data-storage~~ system  
housing along a longitudinal axis of the ~~media-storage~~ device housing, ~~the opposing ends of the~~  
~~media-storage device housing being located along the longitudinal axis,~~ the data media being  
inserted into and removed from the ~~media-storage~~ device housing along an axis transverse to the  
longitudinal axis;

a spring mechanism having plural fingers configured to engage the corresponding  
plurality of data media in the device housing;

a data exchange device for reading data from the data media; and

a media handling system for transferring data media from the media storage device to the  
data exchange device.

22. (Currently Amended) The data storage system of claim 21, wherein the media storage  
device further comprises a locking plate attached to the ~~media-storage~~ device housing and  
configured to engage a locking mechanism located in the opening in the ~~data-storage~~ system  
housing.

23. (Cancelled).

24. (Previously Presented) The data storage system of claim 21, wherein the housing of the media storage device is molded from plastic.

25. (Currently Amended) The data storage system of claim 21, wherein the ~~media storage~~ device housing further comprises a handle configured to enable an operator to apply a force substantially parallel to the first elongate alignment ~~groove~~ structure such that when the first elongate alignment ~~groove~~ structure engages the first elongate reference ~~[[rail]]~~ structure the media storage device may be inserted and removed from the ~~data storage~~ system housing.

26. (Currently Amended) The data storage system of claim 21, wherein the ~~media storage~~ device housing has opposing sides located between the top and the bottom and extending parallel to the longitudinal axis, at least one of the opposing sides being configured to receive the data media.

27. (Currently Amended) The data storage system of claim 21, ~~further comprising:~~  
[[a]] wherein the spring mechanism ~~comprising~~ has a first end and a second end, the first end being operationally attached to the top of the ~~media storage~~ device housing; and  
[[a]] each finger is attached to the second end of the spring mechanism;  
~~wherein the spring mechanism and the finger are configured to engage the data media.~~

28. (Currently Amended) The data storage system of claim 26, wherein the ~~media storage~~ device housing comprises a plurality of slots defined by a plurality of dividers positioned in spaced-apart relation within the ~~media storage~~ device housing, and wherein the spring mechanism and fingers are configured to engage and secure the corresponding plurality of data media in respective slots.

29. (Currently Amended) The data storage system of claim ~~[[27]]~~ 21, wherein the spring mechanism comprises a metallic strip.

1 30. – 34. (Cancelled)

1 35. (Currently Amended) The data storage system of claim 21, further comprising means for  
2 applying a force substantially parallel to the first elongate alignment ~~groove~~ structure.

1 36. (Cancelled)

1 37. (Currently Amended) The data storage system of claim [[36]] 40, wherein the media  
2 storage device further comprises a locking plate attached to the media storage device housing  
3 and configured to engage a locking mechanism located in the opening in the data storage system  
4 housing.

1 38. (Currently Amended) The data storage system of claim [[36]] 40, wherein the housing of  
2 the media storage device is molded from plastic.

1 39. (Currently Amended) The data storage system of claim [[36]] 40, wherein the media  
2 storage device housing has opposing sides located between the top and the bottom and extending  
3 parallel to the longitudinal axis, at least one of the opposing sides being configured to receive the  
4 data media.

1 40. (Currently Amended) ~~The data storage system of claim 36, further comprising:~~ A data  
2 storage system comprising:

3 a data storage system housing having an opening, and reference rails located adjacent the  
4 opening; and

5 a media storage device for storing a plurality of data media, the media storage device  
6 comprising a media storage device housing configured to receive the plurality of data media, the  
7 housing having opposing ends, the media storage device housing having alignment grooves, each  
8 of which is adapted to slidably engage with a respective one of the reference rails such that the  
9 media storage device may be inserted into and removed from the data storage system housing by  
10 slidably engaging the reference rails and the alignment grooves and guiding the media storage  
11 device through the opening of the data storage system housing along a longitudinal axis of the  
12 media storage device housing, the opposing ends of the media storage device housing being  
13 located along the longitudinal axis, the data media being inserted into and removed from the  
14 media storage device housing along an axis transverse to the longitudinal axis;

15 a spring mechanism comprising a first end and a second end, the first end being  
16 operationally attached to the top of the media storage device housing; and

17 a finger attached to the second end of the spring mechanism;

18 wherein the spring mechanism and the finger are configured to engage the data media.

1 41. (Currently Amended) The data storage system of claim [[36]] 40, wherein the media  
2 storage device housing comprises a plurality of slots defined by a plurality of dividers positioned  
3 in spaced-apart relation within the media storage device housing.

1 42. (Previously Presented) The data storage system of claim 40, wherein the spring  
2 mechanism comprises a metallic strip.

1 43. (Currently Amended) A data storage system comprising:

2 a ~~data-storage~~ system housing having an opening, and reference [[rails]] structures  
3 located adjacent the opening;

4 a media storage device for storing a plurality of data media, the media storage device  
5 comprising a ~~media-storage~~ device housing configured to receive the plurality of data media, ~~the~~  
6 ~~housing having opposing ends~~, the ~~media-storage~~ device housing having alignment ~~grooves~~  
7 structures, each of which is adapted to slidably engage with a respective one of the reference  
8 [[rails]] structures such that the media storage device may be inserted into and removed from the  
9 ~~data-storage~~ system housing by slidably engaging the reference [[rails]] structures and the  
10 alignment ~~grooves~~ structures and guiding the media storage device through the opening of the  
11 ~~data-storage~~ system housing along a longitudinal axis of the ~~media-storage~~ device housing, ~~the~~  
12 ~~opposing ends of the media-storage device housing being located along the longitudinal axis~~, the  
13 data media being inserted into and removed from the ~~media-storage~~ device housing along an axis  
14 transverse to the longitudinal axis;

15 a spring mechanism having fingers configured to engage the corresponding plurality of  
16 data media to secure the plurality of data media in the device housing;

17 a drawer to receive the media storage device, the drawer being moveable between a  
18 retracted position and an extended position; and

19 guide rails to enable movement of the drawer between the retracted and extended  
20 positions, the guide rails being separate from the reference rails.

1 44. (Currently Amended) The data storage system of claim 43, wherein the guide rails  
2 comprise a first guide rail attached to the drawer, a second guide rail attached to the ~~data-storage~~  
3 system housing, and a third guide rail slidably engaged to the first and second guide rails.

1 45. (Currently Amended) The data storage system of claim 43, wherein engagement of the  
2 reference [[rails]] structures and respective alignment ~~grooves~~ structures lifts the media storage  
3 device from the drawer.

1 46. (Currently Amended) The data storage system of claim 45, wherein engagement of the  
2 reference [[rails]] structures and respective alignment ~~grooves~~ structures when the drawer is in  
3 the retracted position determines a position of the media storage device in the data storage  
4 system housing instead of the drawer determining the position of the media storage device.

1 47. (Currently Amended) A data storage system comprising:  
2 a ~~data-storage~~ system housing having an opening, and reference [[rails]] structures  
3 located adjacent the opening;  
4 a media storage device for storing a plurality of data media, the media storage device  
5 comprising a ~~media-storage~~ device housing configured to receive the plurality of data media, ~~the~~  
6 ~~housing having opposing ends~~, the ~~media-storage~~ device housing having alignment ~~grooves~~  
7 structures, each of which is adapted to slidably engage with a respective one of the reference  
8 [[rails]] structures such that the media storage device may be inserted into and removed from the  
9 ~~data-storage~~ system housing by slidably engaging the reference [[rails]] structures and the  
10 alignment ~~grooves~~ structures and guiding the media storage device through the opening of the  
11 ~~data-storage~~ system housing along a longitudinal axis of the ~~media-storage~~ device housing, ~~the~~  
12 ~~opposing ends of the media-storage device housing being located along the longitudinal axis~~, the  
13 data media being inserted into and removed from the ~~media-storage~~ device housing along an axis  
14 transverse to the longitudinal axis;  
15 a spring mechanism having fingers configured to engage the corresponding plurality of  
16 data media to secure the plurality of data media in the device housing;  
17 a moveable drawer to receive the media storage device; and  
18 an automated drive system adapted to, in response to user input, move the drawer  
19 between a retracted position to an extended position.

1 48. (Previously Presented) The data storage system of claim 47, wherein the drive system has  
2 a motor to cause movement of the drawer.

1 49. (Previously Presented) The data storage system of claim 48, wherein the drive system  
2 has a drive gear driven by the motor to cause movement of the drawer.

1 50. (Previously Presented) A data storage system comprising:

2 a data storage system housing having an opening, and reference rails located adjacent the  
3 opening;

4 a media storage device for storing a plurality of data media, the media storage device  
5 comprising a media storage device housing configured to receive the plurality of data media, the  
6 housing having opposing ends, the media storage device housing having alignment grooves, each  
7 of which is adapted to slidably engage with a respective one of the reference rails such that the  
8 media storage device may be inserted into and removed from the data storage system housing by  
9 slidably engaging the reference rails and the alignment grooves and guiding the media storage  
10 device through the opening of the data storage system housing along a longitudinal axis of the  
11 media storage device housing, the opposing ends of the media storage device housing being  
12 located along the longitudinal axis, the data media being inserted into and removed from the  
13 media storage device housing along an axis transverse to the longitudinal axis; and

14 a moveable drawer to receive the media storage device, the drawer moveable between a  
15 retracted position inside the data storage system housing and an extended position wherein the  
16 drawer protrudes from the data storage system housing,

17 the drawer further comprising supplemental slots to store spare data media, the  
18 supplemental slots separate from the media storage device.

1 51. (Previously Presented) The data storage system of claim 50, further comprising at least  
2 another media storage device for storing a plurality of data media,

3 wherein the drawer has trays to receive respective media storage devices,

4 the supplemental slots being separate from the media storage devices.

1 52. (Previously Presented) The data storage system of claim 43, wherein the drawer and  
2 media storage device are an integrated unit.

1    53.   (Previously Presented) A data storage system comprising:  
2           a data storage system housing having an opening, and reference rails located adjacent the  
3   opening;  
4           a media storage device for storing a plurality of data media, the media storage device  
5   comprising a media storage device housing configured to receive the plurality of data media, the  
6   housing having opposing ends, the media storage device housing having alignment grooves, each  
7   of which is adapted to slidably engage with a respective one of the reference rails such that the  
8   media storage device may be inserted into and removed from the data storage system housing by  
9   slidably engaging the reference rails and the alignment grooves and guiding the media storage  
10   device through the opening of the data storage system housing along a longitudinal axis of the  
11   media storage device housing, the opposing ends of the media storage device housing being  
12   located along the longitudinal axis, the data media being inserted into and removed from the  
13   media storage device housing along an axis transverse to the longitudinal axis;  
14           at least another media storage device for storing a plurality of data media,  
15           the media storage devices stacked in a vertical stack arrangement; and  
16           a plurality of moveable drawers to receive respective media storage devices, each drawer  
17   moveable between a retracted position inside the data storage system housing and an extended  
18   position wherein the drawer protrudes from the data storage system housing.



1 54. (Currently Amended) ~~The data storage system of claim 36, further comprising:~~ A data  
2 storage system comprising:

3 a data storage system housing having an opening, and reference rails located adjacent the  
4 opening; and

5 a media storage device for storing a plurality of data media, the media storage device  
6 comprising a media storage device housing configured to receive the plurality of data media, the  
7 housing having opposing ends, the media storage device housing having alignment grooves, each  
8 of which is adapted to slidably engage with a respective one of the reference rails such that the  
9 media storage device may be inserted into and removed from the data storage system housing by  
10 slidably engaging the reference rails and the alignment grooves and guiding the media storage  
11 device through the opening of the data storage system housing along a longitudinal axis of the  
12 media storage device housing, the opposing ends of the media storage device housing being  
13 located along the longitudinal axis, the data media being inserted into and removed from the  
14 media storage device housing along an axis transverse to the longitudinal axis;

15 at least another media storage device for storing a plurality of data media,  
16 the media storage devices stacked in a vertical stack arrangement; and

17 a bulk access apparatus to provide single access to the plurality of media storage devices  
18 arranged in the vertical stack arrangement.

1 55. (Currently Amended) The data storage system of claim ~~[[36]]~~ 40, further comprising:

2 a media exchange device for moving the media storage device;

3 a first guide structure attached to the media exchange device;

4 a second guide structure attached to the data storage system housing, the second guide  
5 structure to interact with the first guide structure to move the media exchange device,

6 wherein the reference rails and alignment grooves are separate from the guide structures.

1 56. (Previously Presented) The data storage system of claim 55, wherein the media exchange  
2 device is integrated with the media storage device.

1 57. (Currently Amended) The data storage system of claim [[36]] 40, wherein the media  
2 storage device is for storing a plurality of machine-readable devices, each machine-readable  
3 device for storing data.

1 58. (Currently Amended) The data storage system of claim [[36]] 40, wherein the media  
2 storage device has a plurality of slots to receive respective data media.

1 59. (Currently Amended) The data storage system of claim [[36]] 40, further comprising a  
2 second media storage device for storing a plurality of data media, the second media storage  
3 device having alignment grooves,  
4 wherein the alignment grooves of the second media storage device are engageable by the  
5 same reference rails.

1 60. (Currently Amended) A data storage system comprising:  
2 a data storage system housing having an opening and reference structures;  
3 a media storage device for storing a plurality of data media devices, the media storage  
4 device having a housing with alignment structures to slidably engage the respective reference  
5 structures to enable slidable movement of the media storage device through the opening of the  
6 data storage system housing; [[and]]  
7 a spring mechanism having plural fingers configured to engage and secure the  
8 corresponding plurality of data media in the device housing;  
9 a moveable media exchange device to receive the media storage device, the media  
10 exchange device moveable between a retracted position and an extended position, wherein the  
11 media storage device is positioned inside the data storage system housing when the media  
12 exchange device is in the retracted position, and wherein the media storage device protrudes  
13 from the data storage system housing when the media exchange device is in the extended  
14 position; and  
15 guide structures to moveably guide the media exchange device between the retracted and  
16 extended positions.

1 61. (Previously Presented) The data storage system of claim 60, wherein the guide structures  
2 are separate from the reference structures and alignment structures.

1 62. (Previously Presented) The data storage system of claim 61, wherein the media storage  
2 device has a plurality of slots to receive respective data media devices.

1 63. (New) The data storage system of claim 21, wherein the first and second elongate  
2 reference structures comprise first and second elongate reference rails, and wherein the first and  
3 second elongate alignment structures comprise first and second elongate alignment grooves.

1 64. (New) The data storage system of claim 21, further comprising:  
2 a moveable media exchange device to receive the media storage device, the media  
3 exchange device moveable between a retracted position and an extended position.

1 65. (New) The data storage system of claim 21, wherein the fingers comprise respective  
2 locking elements to secure respective data media.

1 66. (New) The data storage system of claim 43, wherein the fingers comprise respective  
2 locking elements to secure respective data media.

1 67. (New) The data storage system of claim 50, wherein the supplemental slots are defined  
2 by one or more slot dividers.